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M U D P I E no. 8

Museum and University Data, Program and Information Exchange

AN INDEX OF EDP-IR PROJECTS IN SYSTEMATICS

A list of such projects, under the title given above, has been mimeographed and distributed by Theodore J. Crovello, Department of Biology, University of Notre Dame, Notre Dame, Indiana, 46556. It is scheduled to be published in the December 1969 issue of TAXON, but presumably interested individuals could obtain a copy by writing directly. The most obvious conclusion one derives from a review of this material is that a great deal of duplication of effort continues to take place. Certainly the number of people trying to computerize collections grows at a terrific rate. Crovello indicates that there will be further issues of the Index, so individuals expecting to or engaged in work on electronic data processing in information retrieval should plan to submit information for inclusion (see MUDPIE 2 for an earlier announcement).

GIPSY

The University of Oklahoma Computing Center has a functional system for recovery of museum specimen records, which they call GIPSY (General Information Processing System). A recent demonstration of the system for personnel at the Smithsonian was based on 23000 detailed descriptions of the same number of ethnological specimens in 24 museums in Oklahoma and Missouri. According to the U. of Okla. Computing Center it is also in use by the U. S. Geological Survey for processing bibliographic data, project files and personnel files, by several hospitals for analysis of patient records, and by the U. of Okla. for work in half a dozen different projects, including palynological data and psychiatric record analysis.

This is, as far as I know, the first functional system for museum collection data retrieval that is completely accessible from anywhere in the United States. (The data bank in Norman was accessed by telephone and acoustic coupler from the National Museum in Washington for the demonstration.) A single cost statement is available, which says "a search of 18,251 records, selecting 625 records of musical instruments, took 16 minutes of computer time, at a total cost of $26, including a 625 page printout of the complete records."

Further information on GIPSY can be obtained from Dr. James W. Sweeney, Computing Center, University of Oklahoma, Norman, Oklahoma, 73069.

S I I R S

"The Smithsonian Institution's Information Retrieval System (SIIRS) for Biological and Petrographic Data" has been described in a mimeographed paper with

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that title, written by Reginald Creighton and Richard King, and available in very limited supply from the senior author at the Information Systems Division, Smithsonian Institution, Washington, D. C., 20560. It describes the current status of the program in the Smithsonian toward permitting catalogue data to be "captured, indexed, and stored with a view toward high speed access."

"COMPUTERIZED MUSEUM NETWORK"

A four page mimeographed leaflet with this title is available from Dr. Hubert F. Schiffer, Computing Center, University of Oklahoma, Norman, Oklahoma, 73069. It is based primarily on the retrieval system GIPSY (see note above), but is of general interest to all MUDPIE readers.

AN APPROACH TO THE GEOGRAPHY PROBLEM IN MUSEUMS

A mimeographed summary with the title above is available from the authors, D. Piacesi or R. A. Creighton, both of the Information Systems Division, Smithsonian Institution, Washington, D. C. 20560. They have designed a system that will accept data for geographic points in many dissimilar forms, and then permit its retrieval even though asked for in a different form. Thus, one should be able to put in a locality as 38° 52' N latitude, 77° 00' W longitude (the coordinates of Washington, D. C.) or as "Atlanta, Georgia", and then be able to retrieve both when information on the "Eastern United States" is called for. This can be done under their system, which was developed as part of SIIRS (Smithsonian Institution's Information Retrieval System).

EXISTING INSTALLATIONS IN THE UNITED STATES

Previous lists of existing installations have been given in MUDPIES 1, 2, and 4. These have been listed to make possible the exchange of information between institutions through the use both of the teletypes and the time-shared computers. The following have not been listed before:

Los Angeles County Museum, Los Angeles, California. Area Code 213, 746-0655 [TELETYPE number].

American Museum of Natural History, New York City. Contact Dr. Richard van Gelder, Department of Mammalogy.

Insofar as we know, the following are no longer functional:

Academy of Natural Sciences, Philadelphia.

Wellesley College, Wellesley, Massachusetts.

University of Minnesota, St. Paul.

Any other institution having a time-shared connection to a computer and willing to participate in the exchange of data, information, or programs should send information on preferred method of contact to James A. Peters, Division of Reptiles, Museum of Natural History, Washington, D. C. 20560.

MAGAZINE AVAILABLE

Volume 1, number 1, of "Computer Decisions," a magazine appeared in September, 1969. It is dedicated to serving the need for "perception of the computer's potential, as well as its limitations, in every field." Subscription is free, if you qualify under their definitions of the kind of user they wish to reach. Address is: Computer Decisions, Hayden Publishing Company, Inc., 850 Third Avenue, New York, N. Y. 10022. Ask for their "Free subscription application.

CRAM-COURSE IN TIME-SHARE COMPUTING

MUDPIE 7 announced a cram course in time-share computing, to be held at the Smithsonian during June of 1969. This course was held, with eight people attending, three from outside the Smithsonian (from the Carnegie Museum, the California Academy of Sciences, and the University of Hawaii), and could presumably be called successful, because all "foreigners" were writing programs and working independently with the computer by the end of the second day. I can think of no particularly good reason that such a course could not be held again some day, so if any of the recipients of MUDPIE think they might be able to come to Washington for the accumulation of a basic ground work in time-share computing, write to James A. Peters, Division of Reptiles, Natural History Museum, Washington, D. C., 20560, and indicate when in the next couple of years you would be able to come. If we can put a group together without too much trouble, we will do it.

RECENT LITERATURE OF INTEREST TO MUDPIE READERS

Arnett, Ross H., Jr. Storage and retrieval of information from insect collections. Entomological News, vol. 80, 1969, pp. 197-205.

Bensusan, A. D. Requirements, potential and scope for computers in museums. Samab - South African Museums Association Bulletin, vol. 9, 1968, pp. 149-163. A report on committee review of plans for computer use in South African museums. As now appears inevitable, primary concern revolves around computerization of catalogue data, and there is little discussion of MUDPIE-type use.

Fox, L. and D. F. Mayers. Computing methods for scientists and engineers. Clarendon Press, Oxford, 1968, 255 pp. Not for the systematic biologist who wants to learn more about "computing methods for scientists." Requires a firm math background to get off the third or fourth page, and does not tolerate browsing.

Géry, J. Un essai de systématique quantitative: La classification des espèces du genre Alestes s. lat. (Pisces, Characoidei). Vie et Milieu, Série A: Biologie Marine, vol. 19, 1968, pp. 171-194.

Rogers, M. H. Some aspects of the multiple-access computer system. Science Progress, Oxford, vol. 56, 1968, pp. 389-397.

Rosenberg, Stephen, K. S. Ledeen and T. Kline. Automatic identification and measurement of cells by computer. Science, 163, 1969, pp. 1065-67.

Suppes, P., M. Jerman, and D. Brian. Computer-assisted instruction: Stanford's 1965-66 Arithmetic Program. Academic Press, New York, 1968, 385 pp. Summarizes the experiences gained in working in classroom situations. The most valuable section is chapter 9, on the time-shared system and CAI programming, which covers problems, methods and solutions, many of which will be similar to those encountered in ultimate establishment of a MUDPIE network.

Williams, W. T. and L. J. Webb. The computer and the tropical rainforest. Australian Natural History, Sept., 1968, pp. 92-96. Computer used to facilitate correlation between species presence/absence and floristic classification.

PARTICIPATION IN THE MAKING OF MUDPIES

There seems to be a genuine interest in the continued existence of this Newsletter, to judge from the number of people in the natural history museum business who have requested to be placed on the mailing list. We will continue to put it together and get it out at irregular intervals, but we have no objection at all to any of you who have something that you think might be of interest to others and send it in for inclusion to MUDPIE. We have had no indication of specialized programs written for use by systematists, for example, in the last few issues, but it is quite likely that such work is being done. If you have written a program for some specific purpose and are willing to share it with others, see earlier MUDPIES for the method we have used to list programs, and let us have similar information.

Smithsonian Institution
December, 1969